

US EPA ARCHIVE DOCUMENT

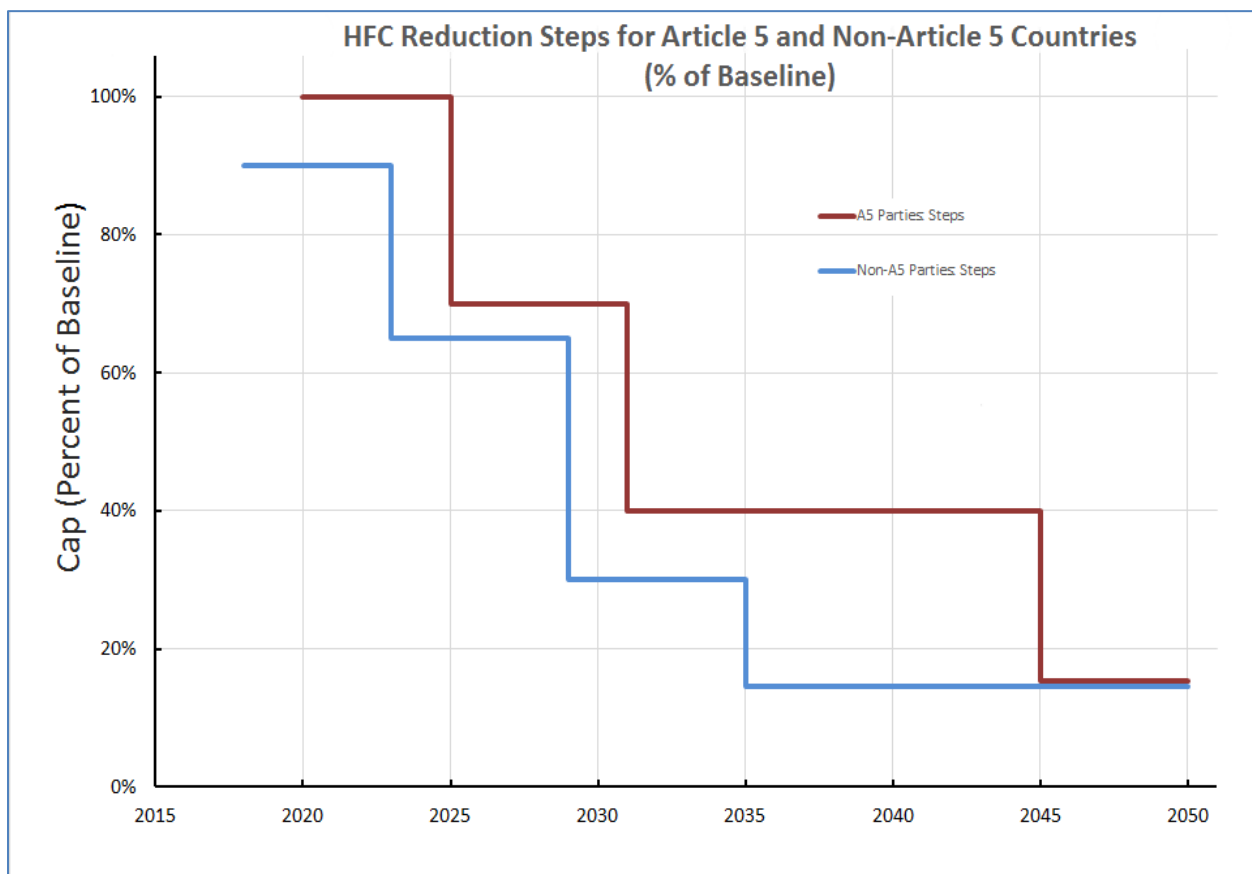
Summary: North American 2014 HFC Submission to the Montreal Protocol

The North American amendment proposal is a starting point for discussions to adopt an amendment to the Montreal Protocol on hydrofluorocarbons (HFCs), which are being used predominantly as replacements for ozone-depleting substances being phased out under the Montreal Protocol.

Key elements of the North American proposal:

- Lists 19 HFCs as a new Annex F.
- Recognizes that there may not be alternatives for all HFC applications today and therefore proposes a gradual phasedown with a plateau, as opposed to a phaseout (see below).
- Proposes separate provisions for non-Article 5 and Article 5 countries' phasedown of production and consumption (see figure below) on a global warming potential (GWP)-weighted basis.
 - The baseline for Article 5 countries is calculated as 100% of average HFC consumption and production and 40% of average HCFC consumption and production from 2011-2012.
 - For non-Article 5 countries, the baseline is calculated as 100% of average HFC consumption and production and 85% of average HCFC consumption and production from 2008-2010.
 - Uses GWP weighting as compared to typical Montreal Protocol weighting by Ozone Depleting Potential.

Proposed HFC Reduction Steps for Article 5 and Non-Article 5 Countries (% of baseline)



- Includes provisions to limit HFC-23 byproduct emissions.
- Requires licensing of HFC imports and exports, and bans imports and exports to non-Parties.
- Requires reporting on HFC production, consumption, and byproduct emissions.
- Makes eligible for funding under the Montreal Protocol's Multilateral Fund the phasedown of HFC production and consumption as well as the reduction of HFC-23 byproduct emissions.

Potential Steps for Non-A5 Parties		Potential Steps for A5 Parties	
2018	90%	2020	100%
2023	65%	2025	70%
2029	30%	2031	40%
2035	15%	2045	15%

Cumulative Environmental Benefits:

- Cumulative benefits of the HFC amendment proposal estimated by the U.S. Government are between 93,800 – 115,000 million metric tons of carbon dioxide equivalent (MMTCO₂eq) through 2050, and about 115,800–141,100 MMTCO₂eq for 40 years after the effective date of the proposal.
- Cumulative benefits from HFC-23 byproduct emissions controls as estimated by the U.S. Government amount to an additional 12,900 MMTCO₂eq through 2050 and about 15,700 MMTCO₂eq for 40 years after the effective date of the proposal.

Cumulative Consumption Benefits Range through 2050 (MMTCO ₂ eq)	
World Total	80,900 - 102,100
Byproduct Emissions Benefits	12,900
2014 Proposal Total	93,800 – 115,000
Cumulative Consumption 40-Year Benefits Range (MMTCO ₂ eq)	
World Total	100,100 - 125,400
Byproduct Emissions Benefits	15,700
2014 Proposal Total	115,800 - 141,100

Relationship to HCFC phaseout:

- The proposal recognizes that HFCs are alternatives in some existing HCFC applications, so baseline levels are set to accommodate some level of transition from HCFCs to HFCs.

Relationship with the United Nations Framework Convention on Climate Change (UNFCCC):

- The proposal is intended to support overall global efforts aimed at climate system protection.
- The proposal constitutes an amendment to the Montreal Protocol and could be complemented by a related decision by the UNFCCC confirming the Montreal Protocol approach.
- The proposal leaves unchanged the provisions of UNFCCC/Kyoto Protocol that govern HFC emissions.